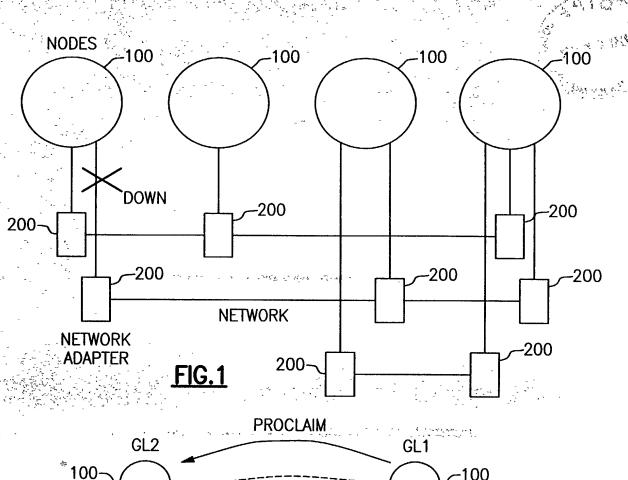
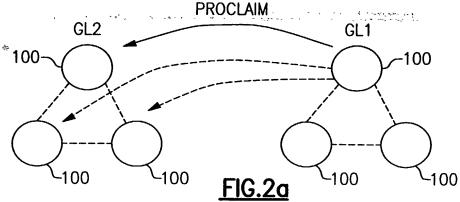
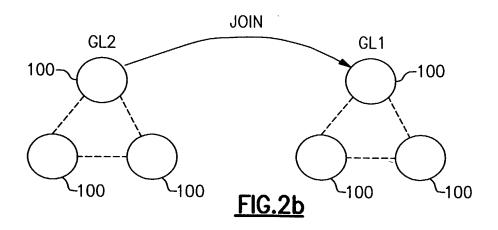
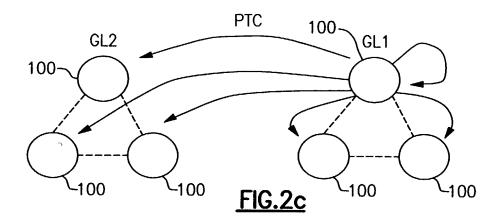
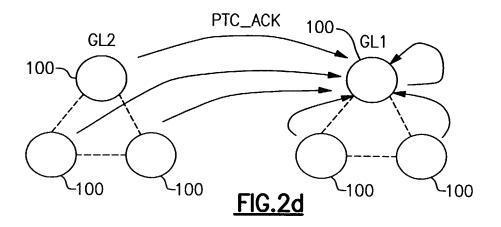
HARE, et al. 1/25 POU920020016US1

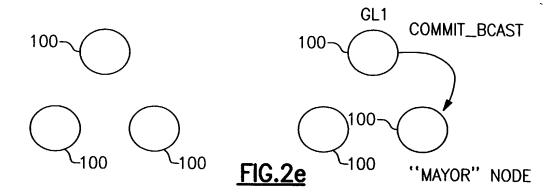


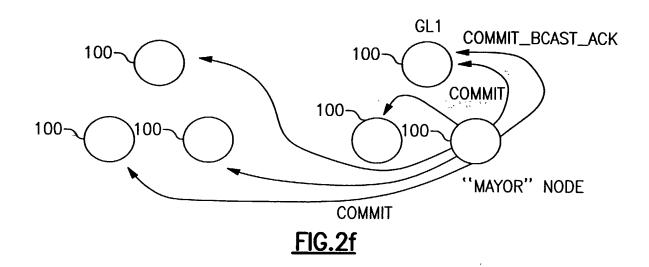


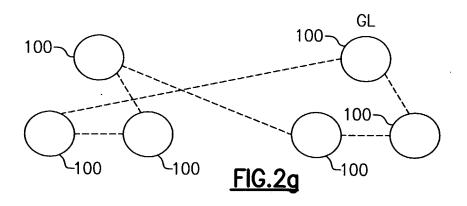


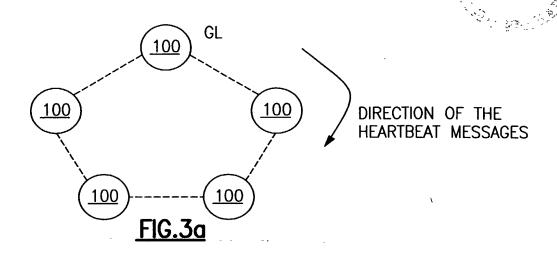


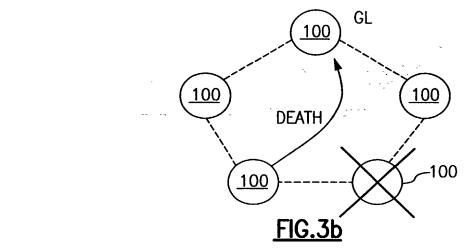


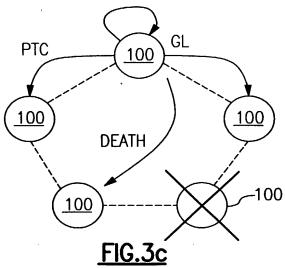


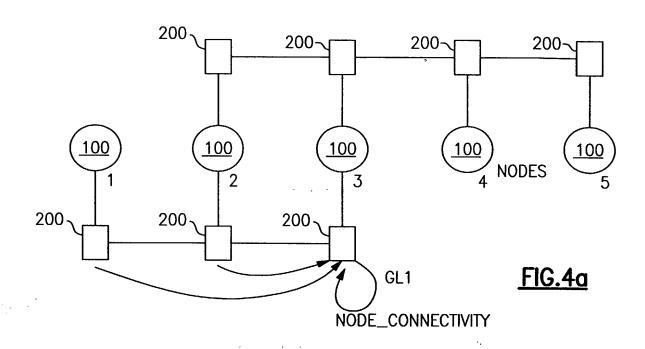


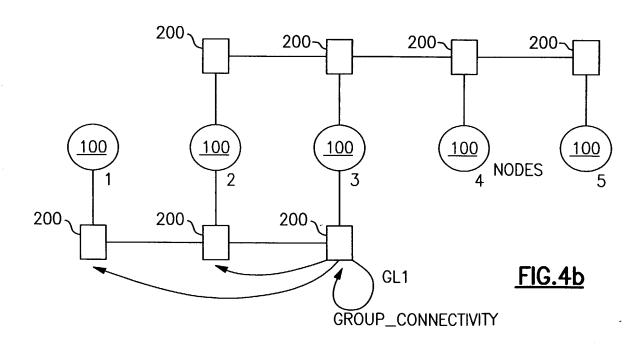


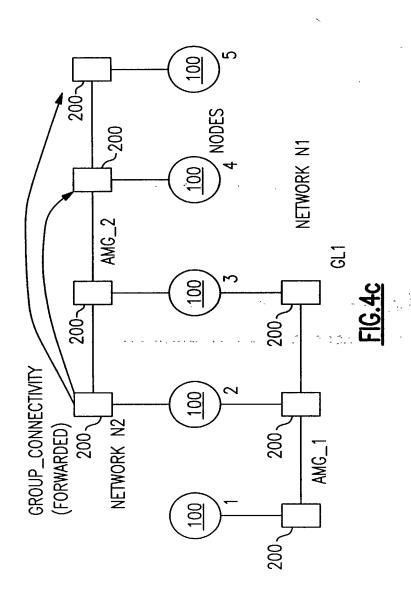


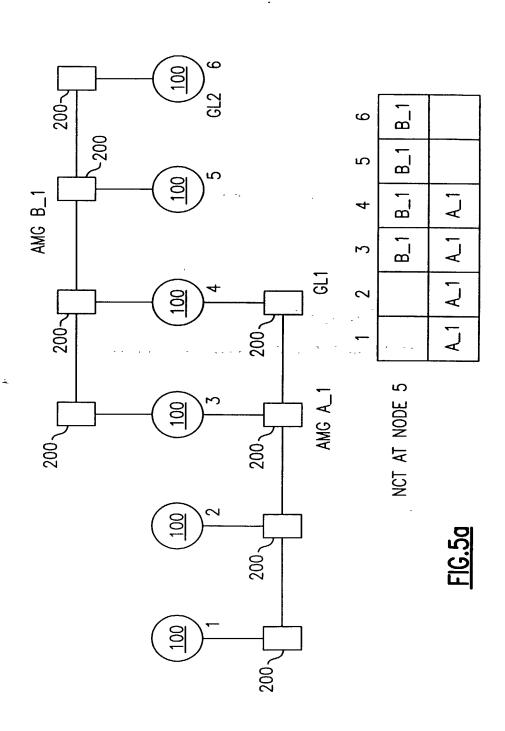


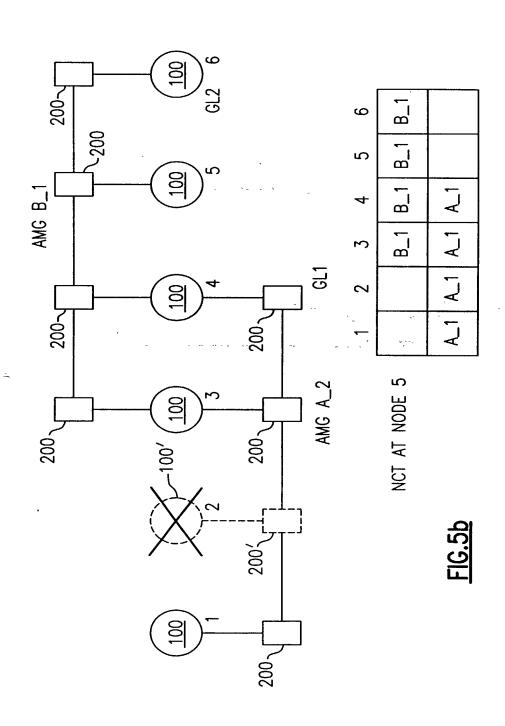


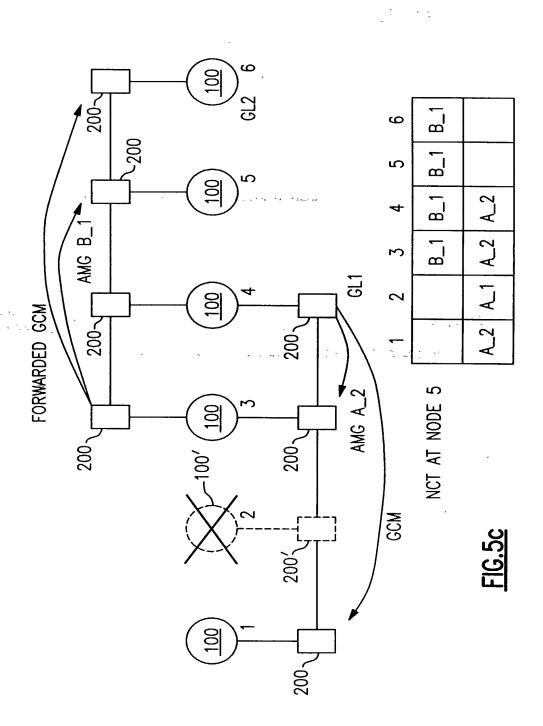












NETWORK A: 10 SECONDS DETECTION TIME NETWORK B: 40 SECONDS DETECTION TIME

NODES 1 AND 2 ARE FORMING AMGS ON NETWORKS A AND B

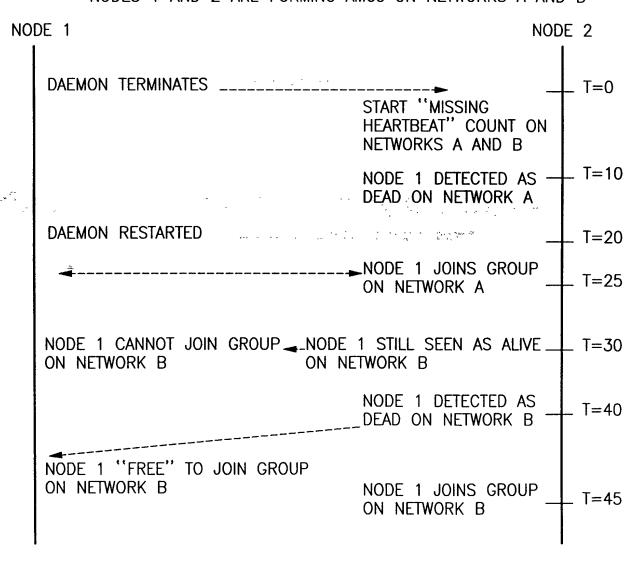


FIG.6

NODE 1 (NOT GL OR CP)

NODE 2 AND **OTHERS**

ADAPTER GLITCH: IT START "MISSING CAN RECEIVE BUT NOT HEARTBEAT" COUNT SEND PACKETS _____

START "MISSING HEARTBEAT" COUNT

---- NODE 1 DETECTED AS DEAD: OTHERS FORM -NEW AMG

UPSTREAM NEIGHBOR DETECTED AS DEAD

DOES NOT HEAR BACK FROM GL OR CP: "DISSOLVE" GROUP AND FORM SINGLETON UNSTABLE AMG

ADAPTER GLITCH ENDS: RESUMES NORMAL OPERATIONS NODE 1 JOINS GROUP

NEVER SEES OTHER NODES GOING DOWN

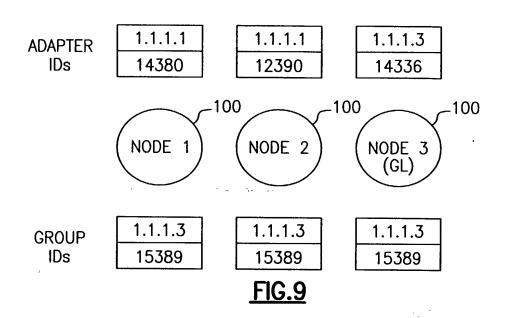
FIG.7

NODE 1 DEAD

NODE 2 AND OTHERS

NODE 1 (GL OR CP) ADAPTER GLITCH: IT START "MISSING CAN RECEIVE BUT NOT HEARTBEAT" COUNT SEND PACKETS START "MISSING HEARTBEAT" COUNT NODE 1 DETECTED AS DEAD: OTHERS FORM UPSTREAM NEIGHBOR DETECTED AS DEAD NEW AMG ADAPTER GLITCH ENDS: RESUMES NORMAL OPERATIONS SENDS PTC TO ALL PEERS NODE 1 EXCEPT UPSTREAM NEIGHBOR DEAD REPLIES WITH PTC ACK SENDS COMMIT TO ALL PEERS NODE 1 JOINS GROUP NEVER SEES OTHER NODES GOING DOWN

FIG.8



MESSAGE TYPE

SOURCE ADAPTER ID

SOURCE GROUP ID

DESTINATION ADAPTER ID

DESTINATION GROUP ID

PAYLOAD

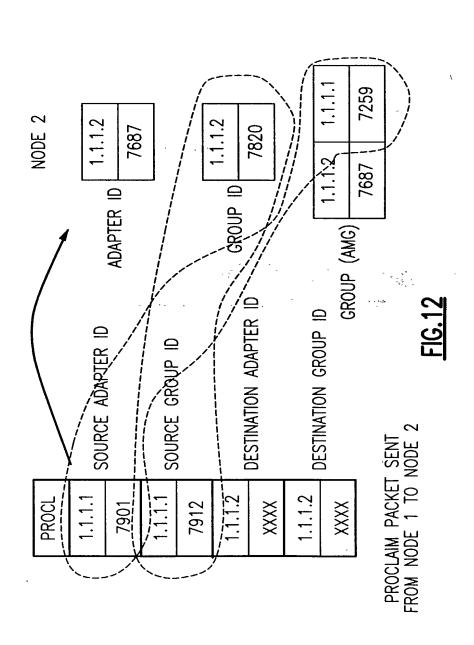
FIG.10

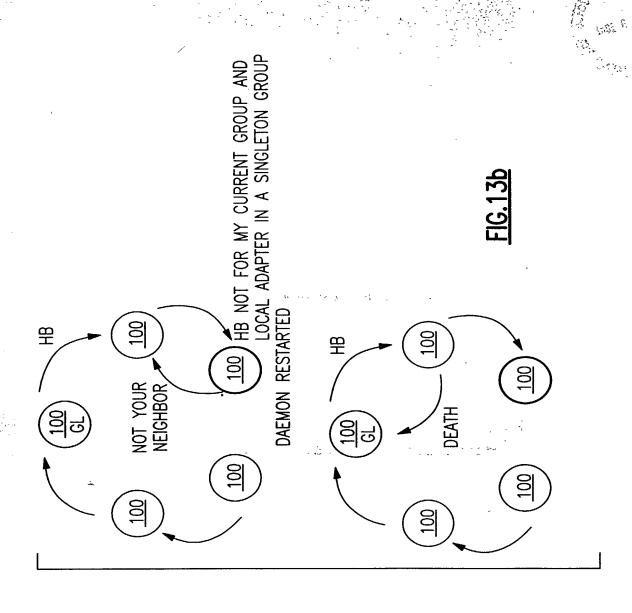
POU920020016UST 11/25

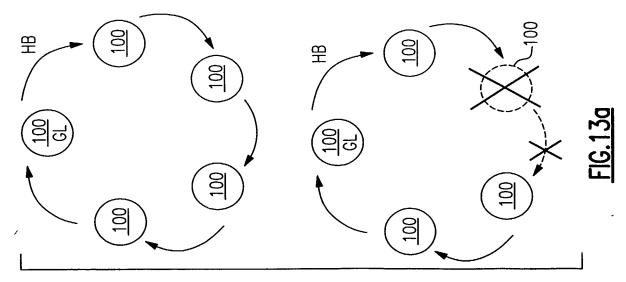


NODE 1 1.1.1.1 7259	ADAPTER ID	1.1	E 2 1.2 87
1.1.1.2 7820	GROUP ID		1.2
1.1.1.2 1.1.1.1 7687 7259	GROUP (AMG)	7687	1.1.1.1 7259
·	AT NODE 1		- y.
1.1.1.1 7901	ADAPTER ID	76	1.2 87
7912	GROUP ID		1.2
1.1.1.1 7901	GROUP (AMG)	1.1.1.2 7687	1.1.1.1 7259

FIG.11









(G)
3
Ж
NODE

NODE 2

|--|

ADAPTER ID

GROUP (AMG)

1.1.1.1

1.1.1	7228	
1.1.1.2	7259	
1.1.1.3	7687	
•		

COMMUNICATION GLITCH IN NODE 3'S ADAPTER.

			
NODE 2 1.1.1.2 7687	7897	7228	1.1.1.1
NOD 76	1.1.	7259	1.1.1.2
	5	1	
ADAPTER ID	GROUP ID	GROUP (AMG)	LAST_STABLE_GROUP
		7228	1.1.1.1
NODE 3 1.1.1.3 7687	7820	7259	7259
	1.1	1.1.1.3	1.1.1.3

FIG. 14b

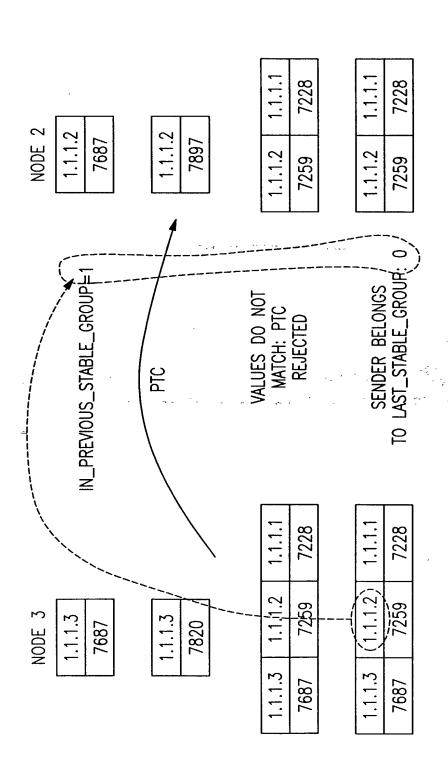
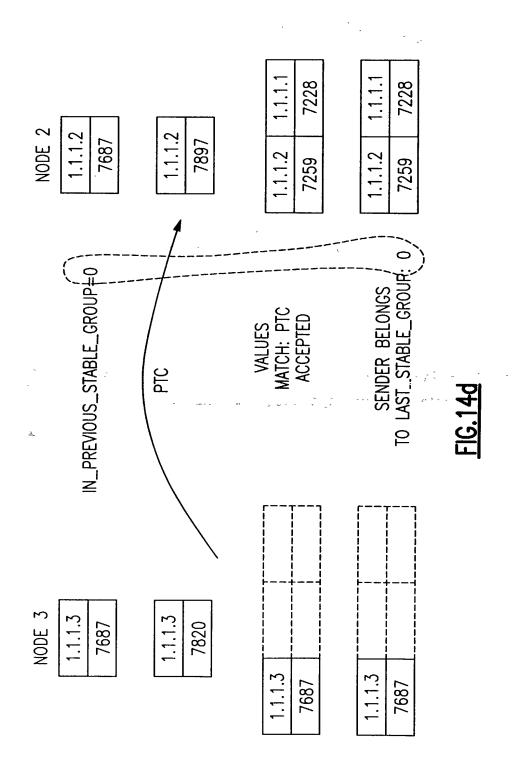


FIG. 14c



LAST_STABLE_GROUP

COMMUNICATION GLITCH IN NODE 1'S ADAPTER.

GROUP ID

ADAPTER. ID

NODE 1

GROUP (AMG)

NODE 3	7687	7884	7259	7259
			7687	7687
	ADAPTER ID	GROUP ID	GROUP (AMG)	LAST_STABLE_GROUP
NODE 1	7228	7820	1.1.1.3 1.1.1.2 1.1.1.1 7687 7259 7228	1.1.1.3 1.1.1.2 1.1.1.1 7687 7259 7228

NODE 3 1.1.1.3 7687	7884	1.1.1.3 1.1.1.2 7687 7259	1.1.1.3 1.1.1.2 7687 7259	
ADAPTER ID	GROUP ID	GROUP (AMG) UNSTABLE	LAST_STABLE_GROUP	FIG. 15c
		7910	7228	
1.1.1.1 7910	7913		1.1.1.3 1.1.1.2 7687 7259	
-			1.1.1.3	

 $\{j_{i}^{\frac{1}{2}}\}$

